

# TEAC

## SERVICE MANUAL

# DR-H300

DVD Receiver



### NOTES

- PC board shown are viewed from parts side.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components. they must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.
- Parts of [ ] mark can be used only with the version designated.

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# DR-H300

## 1 SPECIFICATIONS

### DVD Player

Pick up :	Semiconductor laser, wave length 650/790nm
Signal System:	NTSC/PAL
Video signal horizontal:	More than 480 lines (DVD)
Video signal-to noise ratio:	More than 50 dB (DVD)
Audio frequency response:	20 Hz to 20kHz (+1/-3dB)
Audio signal-to noise ratio:	62 dB
Dynamic range:	80 dB

### S-Video output

Y (luminance) - Output level:	1 Vp-p (75 ohm)
C (color) - Output level:	286 mVp-p (75 ohm)
Jacks:	S-VIDEO jack

### Video output

Output level:	1 Vp-p (75 ohm)
Jacks:	RCA jack

### Component video output (Y, C<sub>B</sub>/P<sub>B</sub>, C<sub>r</sub>/P<sub>r</sub>)

Y-Output level:	1.0 Vp-p (75 ohm)
C <sub>B</sub> /P <sub>B</sub> , C <sub>r</sub> /P <sub>r</sub> -Output level:	0.7Vp-p (75 ohm)
Jacks:	RCA jack

### AV connector

Jack:	SCART
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### HDMI output

Jack:	HDMI 19 pin (version 1.1)
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### Amplifier

#### Output Power

(Stereo, EIAJ, 20 Hz to 20 kHz, 4ohm)	50W + 50W
(Stereo, 1% THD, 20 Hz to 20 kHz, 4ohm)	36W + 36W
Total harmonic distortion	0.7% (at 5 W, 1kHz, 4ohm)
Audio Input sensitivity/impedance: LINE:	600 mV/47 kohm
Output level/impedance (LINE OUT)	100 mV/10kohm
Frequency Response	20 Hz to 20 kHz, +0/-3 dB
Signal-to-noise Ratio	90 dB (IHF-A)

### FM Tuner Section (Without notes 100.1 MHz, 65 dBf)

Tuning Range	87.5 MHz to 108.0 MHz (50 kHz steps)
Total Harmonic Distortion(1 kHz)	Mono: 1%, Stereo: 1.5%
Frequency Response	40 Hz to 10 kHz
Stereo Separation (1kHz)	35 dB
Signal-toNoise Ratio	Mono: 55 dB Stereo: 45 dB

### AM Tuner Section

Tuner Range	522 to 1620 kHz (9 kHz steps)
Usable Sensitivity	900 uV/m
Total Harmonic Distortion	1.5% at 100 dB/m
Signal-toNoise Ratio	40 dB at 100 dB/m

### GENERAL

Power Requirements:	AC230V, 50 Hz
Power Consumption:	50 W (standby: 0.98W)
Dimension (W x H x D ):	215 x110 x350 mm
Weight: (net)	4.5 kg

### Standard Accessories:

Remote Control Unit x 1
AM LoopAntenna x 1
FM Antenna x 1
Batteries (AAA,R03,UM-4) x 2
RCA video cable x 1
Owner's Manual x 1
Warranty Card x 1

- Design and specifications are subject to change without notice.
- Illustrations may differ slightly from production models.
- Weight and dimensions are approximate.

## 2 ADJUSTMENTS AND CHECKS

### 2-1 TUNER SECTION

- Use a screwdriver with a plastic or ceramic grip for all adjustment.

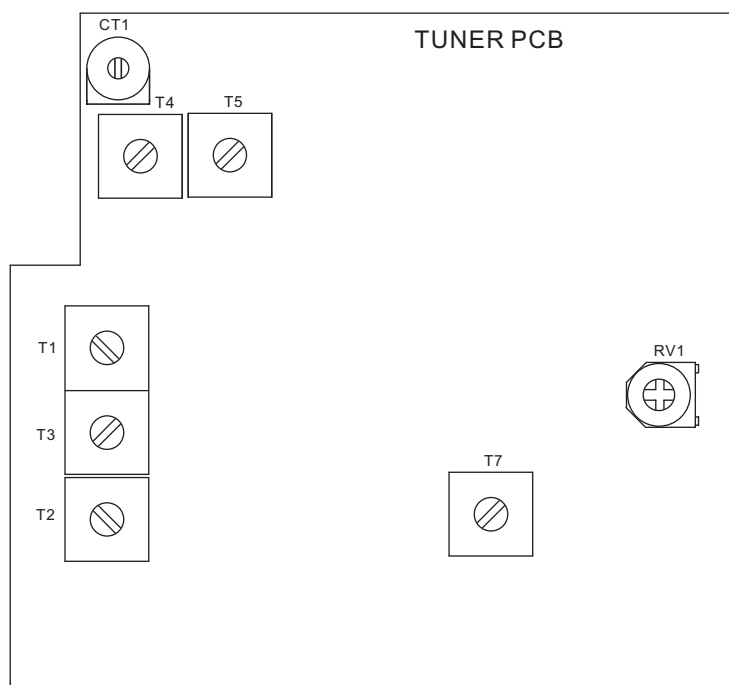
#### 2-1-1 FM adjustment

1. Set the function switch to the FM position.
2. Connect the signal generator output through a 75 ohm dummy antenna to "ANT" on TUNER PCB.
3. Connect the oscilloscope to the speaker terminal.
4. Set the signal generator as listed in the alignment chart.

#### 2-1-2 AM adjustment

1. Set the function switch to the AM position.
2. Connect the test loop antenna across the output of the signal generator.
3. Connect the oscilloscope to the speaker terminal.
4. Set the signal generator as listed in the alignment chart.

### 2-2 Adjustment and Test Points



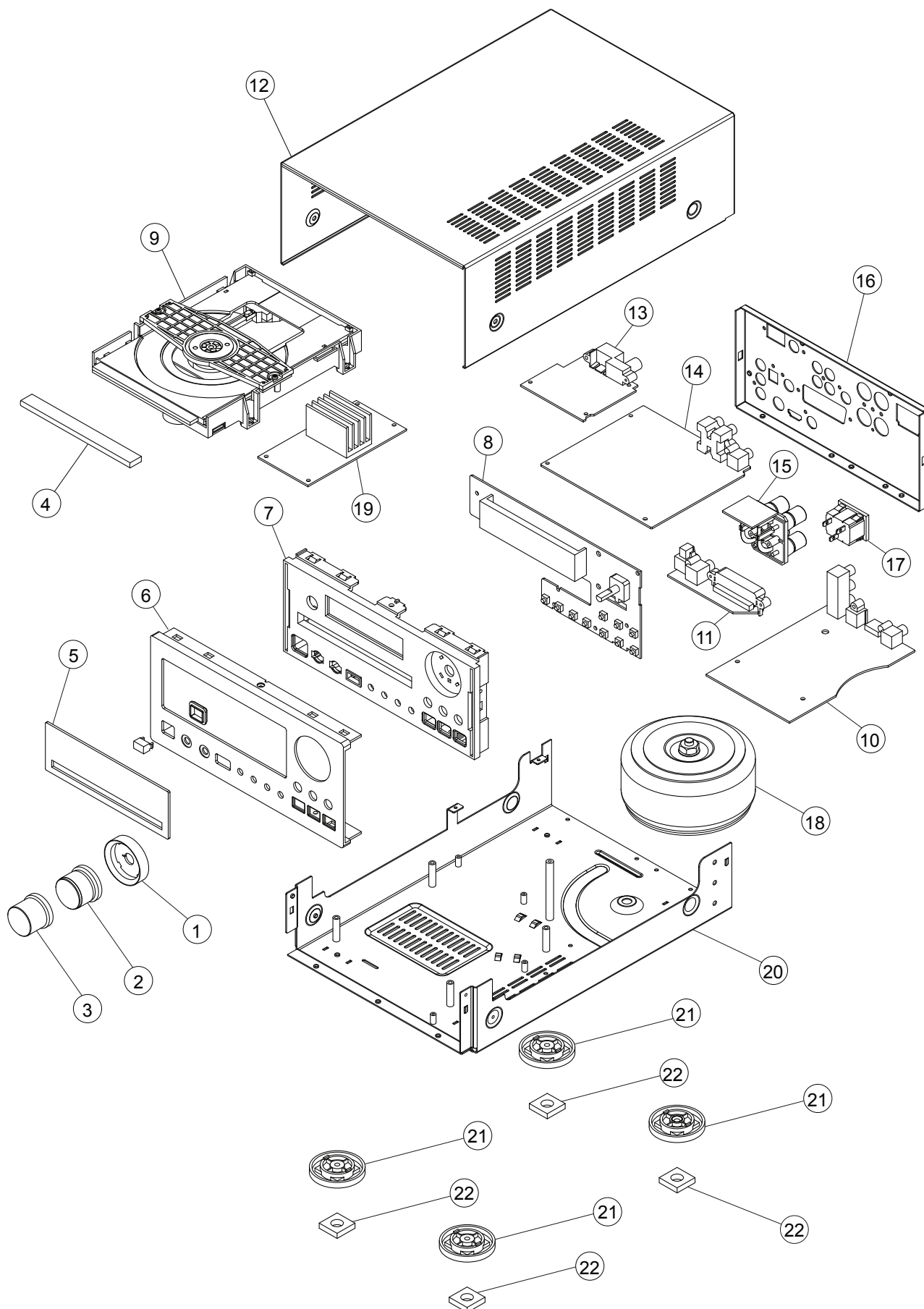
# DR-H300

## 2-2-1 AM/FM alignment chart

ITEM	SG SETTING	TUNER SETTING	ADJUSTMENT	MEASURING POINT. RESULT
<b>AM</b>				
<b>1. VOLTAGE adjustment</b>		1620kHz		VT 8.0V
		522kHz	T5	VT 1.1V
<b>2. IFT adjustment</b>	450kHz 1kHz, 30% mod	999kHz	T1,T2,T3	Adjust for max. output.
<b>3. ANT COIL adjustment</b>	648kHz 1kHz, 30% mod	648kHz	T4	Adjust for max. output.
<b>4. CT1 adjustment</b>	1494kHz 1kHz, 30% mod	1494kHz	CT1 repeat step 3 and 4	Adjust for max. Output.
<b>FM</b>				
<b>1. VOLTAGE adjustment</b>		108.0MHz		VT 8.0V
		87.5MHz		VT 1.4V
<b>2. IFT adjustment</b>	100.0MHz 22.5KHZ	100.0MHz	T7	Adjust for max. output.
<b>4. RV1 adjustment</b>	1KHz 22.5KHZ	100.0MHz	RV1	Adjust for max. output.


## 3 EXPLODED VIEWS AND PARTS LIST

### EXPLODED VIEW - 1



# DR-H300

## EXPLODED VIEW-1

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
1-1	39-DRH300-07A101	VOLUME KNOB RING	
1-2	39-DRK300-06A100	VOLUME KNOB	
1-3	37-DRH300-02A100B	VOLUME KNOB (ALUM.) - BLACK	
	37-DRH300-02A100S	VOLUME KNOB (ALUM.) - SILVER	
1-4	39-DRH300-01A101B	DVD DOOR - BLACK	
	39-DRH300-01A101S	DVD DOOR - SILVER	
1-5	39-DRH300-13A101	LENS	
1-6	37-DRH300-01A101B	ALUMINUM FRONT - BLACK	
	37-DRH300-01A101S	ALUMINUM FRONT - SILVER	
1-7	39-DRH300-02A101B	PLASTIC FRONT - BLACK	
	39-DRH300-02A101S	PLASTIC FRONT - SILVER	
1-8	05-DRH300-06A101	DISPLAY PCB ASSY	
1-9	31000043	DVD BRACKET	
	31000085	DVD #DV-33	
1-10	32000284	DVD DECODE CARD #EJS89HD18T	
1-11	05-DRH300-09A101	USB SCART PCB ASSY	
1-12	37-DRH300-05A101B	CABINET TOP - BLACK	
	37-DRH300-05A101S	CABINET TOP - SILVER	
1-13	05-EC06-02B107	TUNER PCB ASSY	
1-14	05-DRH300-02A101	CPU PCB ASSY	
1-15	05-DRH300-07A101	SPEAKER OUTPUT PCB ASSY	
1-16	37-DRH300-04A101	CABINET BACK	
1-17	24000359	AC SOCKET 15A/250V	
1-18	 11000222	TRANSFORMER AC230V	
1-19	05-DRH300-03A101	AMP PCB ASSY	
1-20	37-DRH300-03A100	CABINET BOTTOM	
1-21	39-DRH300-08A101	MAIN SET FOOT	
	39-DRH300-09A101		
1-22	36000824	SPONGE FOOT	

## 4 PC BOARDS AND PARTS LIST

## TUNER PCB ASSY

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-EC06-02B107	TUNER PCB ASSY	
	35-EC06-02B1	TUNER PCB	
	32000013	FM TUNER KST-F404HA-11A	
CN1	25000025	PINS CONNECTOR 2MM 4PIN	
CN2	25000034	PINS CONNECTOR 2MM 5PIN	
CF1,2	20000009	FM CER,FILTER 10.7MHZ	
CT1	14000478	TRIMMER 10P	
D2	16000047	CHIP DIODE BAS316	
D3	16000010	VAR.DIODE HN1V02H	
DZ1	16000048	CHIP ZENER DIODE 11V	
IC1	19-000042	IC - TEA5762	
JACK1	24000090	ANT. LEADING-OUT TERMINAL WP2-4B	
Q1,5	17000009	CHIP TR - 9014	
Q2	17000001	CHIP TR- BC857B	
Q3	17000018	TR - BC547C	
Q4	17000002	CHIP TR - BC857C	
RV1	34000046	SEMI-FIXED 100K	
T1	12000090	IFT COIL 6298 - BLACK	
T2,3	12000091	IFT COIL 6297 - YELLOW	
T4	12000092	IFT COIL 6299 - BLACK	
T5	12000093	IFT COIL 6296 - BROWN	
T7	12000095	IFT COIL 6295 - BLACK	
X1	22000011	CRYSTAL 75KHZ	

## 8

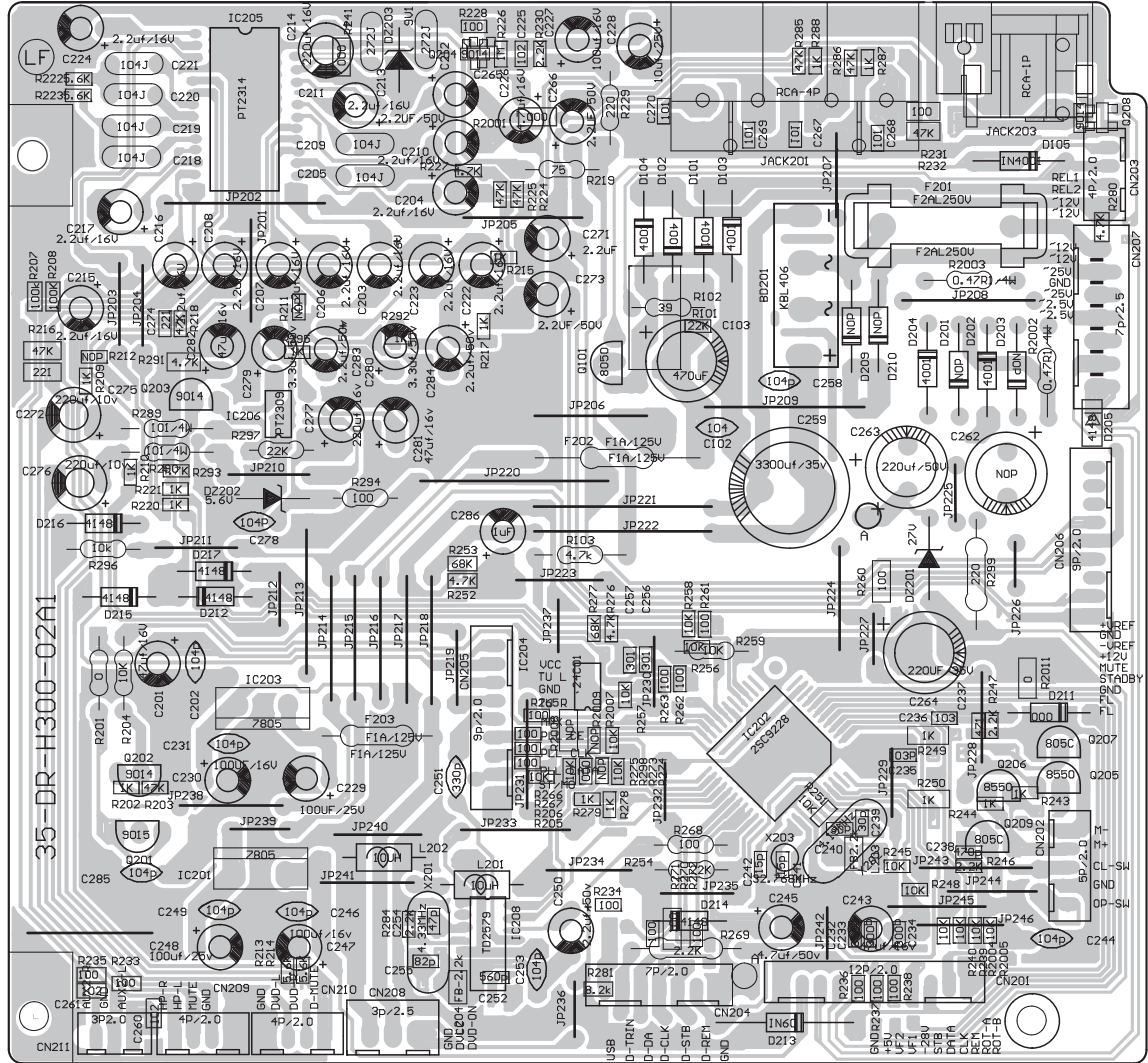


## CPU PCB ASSY

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-DRH300-02A101	CPU PCB ASSY	
	35-DRH300-02A1	CPU PCB	
BD201	18000007	THYRISTOR - RS406	
C259	14000296	E.CAP 3300UF/35V	
CN201	25000059	PINS CONNECTOR 2MM 11PIN	
CN202	25000034	PIN CONNECTOR 2MM 5PIN	
CN203,209,210	25000025	PIN CONNECTOR 2MM 4PIN	
CN204	25000044	PIN CONNECTOR 2MM 7PIN	
CN205,206	25000053	PIN CONNECTOR 2MM 9PIN	
CN207	25000046	PIN CONNECTOR 2.5MM 7PIN	
CN208	25000016	PIN CONNECTOR 2.5MM 3PIN	
CN211	25000014	PIN CONNECTOR 2MM 3PIN	
D101-105,202, D204	16000104	RECTIFIER DIODE 4001	
D205	16000128	CHIP DIODE 4148	
D212,214-217	16000018	DIODE 4148	
D213	16000115	DIODE 1N60	
DZ201	16000089	ZENER DIODE 27V	
DZ202	16000070	ZENER DIODE 5.6V	
DZ203	16000077	ZENER DIODE 9.1V	
F201	26000002	FUSE F2AL250V	
F202,203	26000083	FUSE F1A/125V	
IC201,203	19000103	IC - LM7805	
IC202	19000169	CPU - U252(3P9228)	
IC204	19000071	IC - AT24C02-PC27	
IC205	19000079	IC - PT2314	
IC206	19000075	IC - PT2309-S	
IC208	19000087	IC - PT2579-SN	
JACK201	24000080	RCA SOCKET 4PIN	
JACK203	24000115	SINGLE RCA SOCKET	
L201	15000007	FIXED INDUCTOR 10u	
L202	15000005	FIXED INDUCTOR 10u #52	
L203,204	33000038	FERRITE BEAD CBG0805 2.2K	
Q101,207,209	17000025	TR - 8050C	
Q201	17000039	TR - 9015C	
Q202,203	17000034	TR - 9014C	
Q204,208	17000009	CHIP TR - 9014	
Q205,206	17000030	TR - 8550C	
X201	22000027	CRYSTAL 4.332MHZ	
X202	22000018	CER.FILTER 4.19MHZ	
X203	22000021	CRYSTAL 32.768KHZ	

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CPU PCB



## AMP PCB ASSY

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-DRH300-03A101	AMP PCB ASSY	
	35-DRH300-03AI	AMP PCB	
BD301	18000009	THYRISTOR - RS808	
C332,333	⚠ 14000361	E.CAP 4700UF/35V	
CN301	25000020	PIN CONNECTOR 3.95MM 3PIN	
CN302	25000053	PIN CONNECTOR 2MM 9PIN	
CN305	25000029	PIN CONNECTOR 2.5MM 4PIN	
DZ301	16000070	ZENER DIODE 5.6V	
F301,302	⚠ 26000009	FUSE F6.3AL250V	
IC302	19000112	IC - 7812	
IC303	19000120	IC - TDA8920	
L302,313	15000019	FIXED INDUCTOR 22U	
L305,310	33000017	FERRITE BEAD JRHW0349 -BLUE	
Q301,309	17000005	CHIP TR - BC817-25	
Q302	17000013	TR - 2SB772A	

## HEADPHONE PCB ASSY

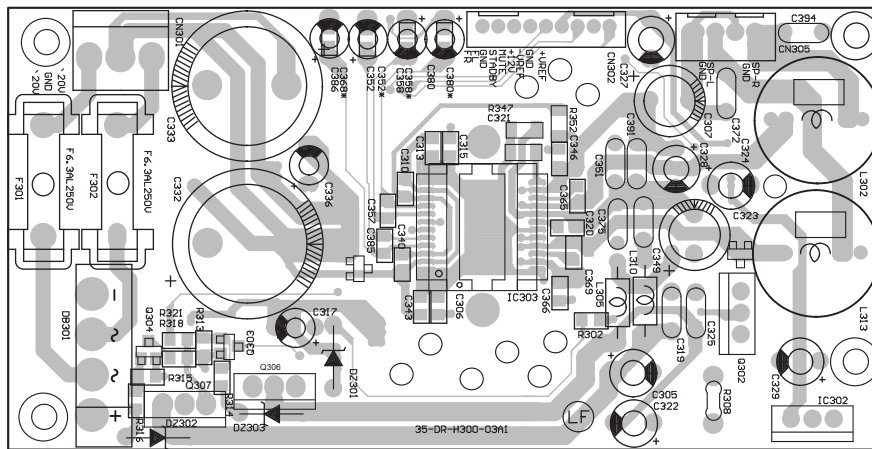
REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-DRH300-05A101	HEADPHONE PCB ASSY	
	35-DRH300-05A1	HEADPHONE PCB	
CN501	25000014	PIN CONNECTOR 2MM 3PIN	
CN502	25000025	PIN CONNECTOR 2MM 4PIN	
JACK202	24000177	HEADPHONE SOCKET #TE-03501S-05	
J104	24000120	HEADPHONE SOCKET #TE-03501S-11	

## SPEAKER OUTPUT PCB ASSY

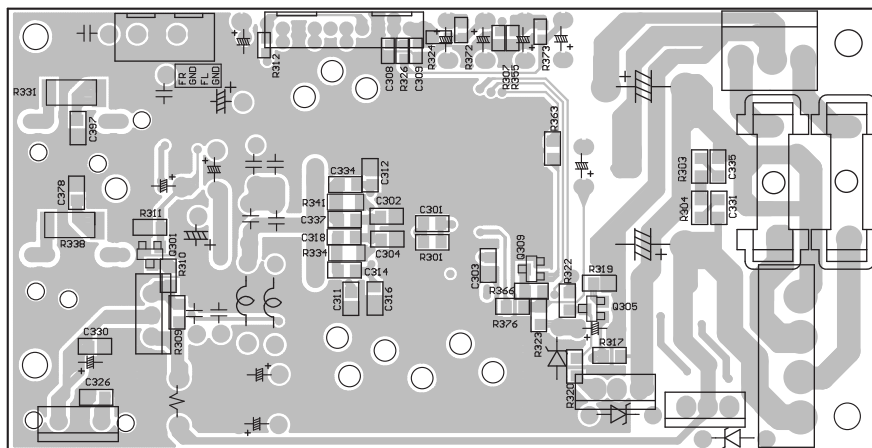
REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-DRH300-07A101	SPEAKER OUTPUT PCB ASSY	
	35-DRH300-07A1	SPEAKER OUTPUT PCB	
CN701	25000029	PINS CONNECTOR 2.5MM 4PIN	
SPK701	24000288	SPEAKER SOCKET 4PIN	

# DR-H300

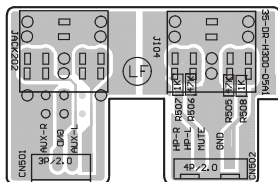
AMP PCB - TOP



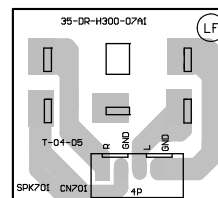
## AMP PCB - BOTTOM



## HEADPHONE PCB



## SPEAKER OUTPUT PCB



## DISPLAY PCB ASSY

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-DRH300-06A101	DISPLAY PCB ASSY	
	35-DRH300-06A1	DISPLAY PCB	
CN601,602	25000025	PIN CONNECTOR 2MM 4PIN	
D601-603	16000018	DIODE 4148	
ENCODER601	30000004	CODER ED1612-24T1	
IC601	19000163	IC - PT6311	
LED601	16000028	LED DIODE D3MM - ORANGE	
S301	21000026	IR SENSOR #STM-404TN	
SW601-609,611, SW612	23000032	LIGHT TOUCH SWITCH #TC103	
VFD701	29000225	VFD DISPLAY #DR-H300	
ZD601	16000056	ZENER DIODE 3V	

## OPTICAL TERMINAL PCB ASSY

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-DRH300-08A101	OPTICAL TERMINAL PCB ASSY	
	35-DRH300-08A1	OPTICAL TERMINAL PCB	
CN801	25000973	PIN CONNECTOR 2MM 13PIN	
JACK801	24000219	SINGLE RCA SOCKET - ORANGE	
JACK802	24000349	OPTICAL DIGITAL JACK GQ-04	
J801	25001450	SCART 21PIN SOCKET	

## ECO POWER PCB ASSY

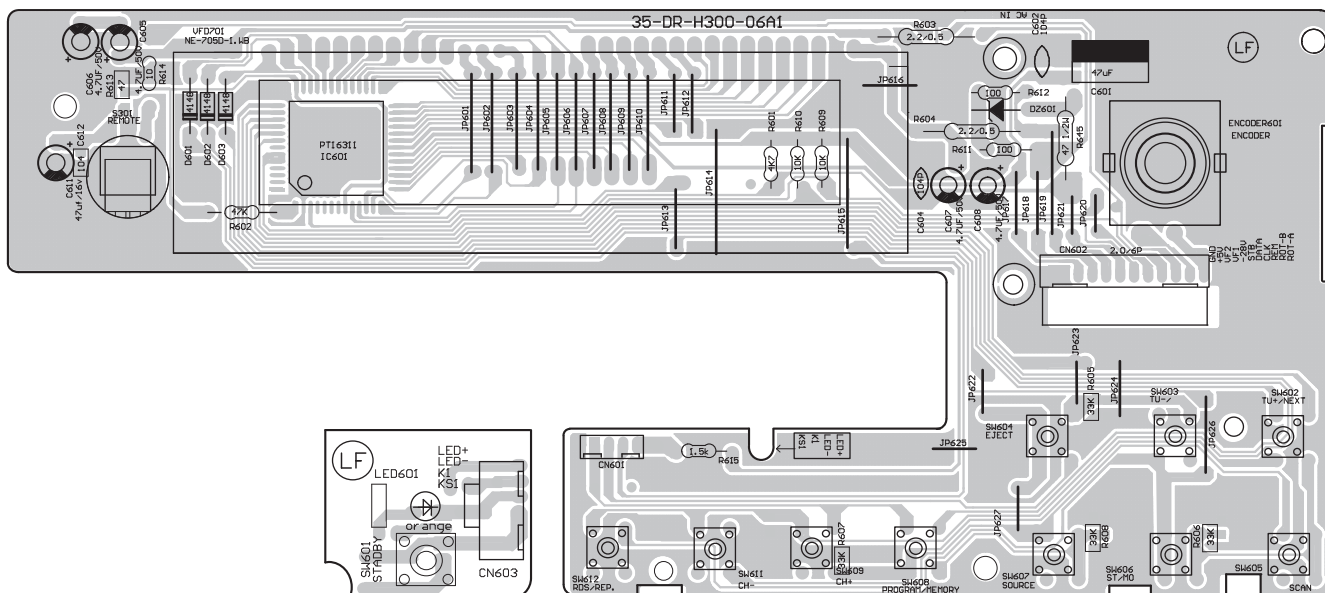
REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-DRH300-01A101	ECO POWER PCB ASSY	
	35-DRH300-01A1	POWER PCB	
CN101	25000025	PIN CONNECTOR 2MM 4PIN	
CN102,103	25001581	PIN SOCKET 3.95MM 3PIN	
F101	26000002	FUSE F2AL250V	
REL1201	34000012	RELAY10A240V-30VDC	
T2201	11000080	TRANSFORMER ECO-394	

## USB SCART PCB ASSY

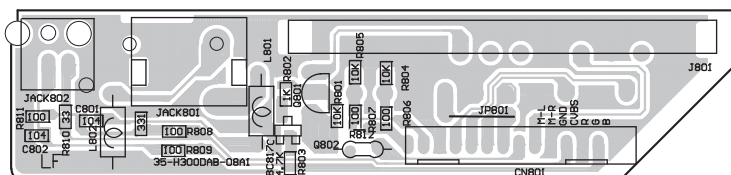
REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	05-DRH300-09A101	USB SCART PCB ASSY	
	35-DRH300-09A1	USB SCART PCB	
CN901	25000025	PINS CONNECTOR 2MM 4PIN	
JACK901	24000351	USB A-TYPE 4PIN	

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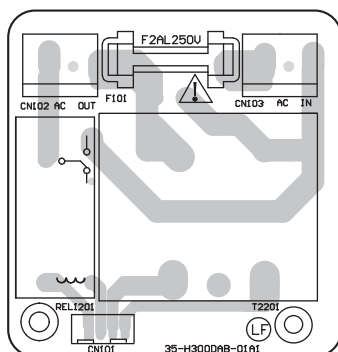
## DISPLAY PCB



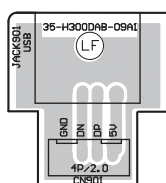
## OPTICAL TERMINAL PCB



## ECO POWER PCB



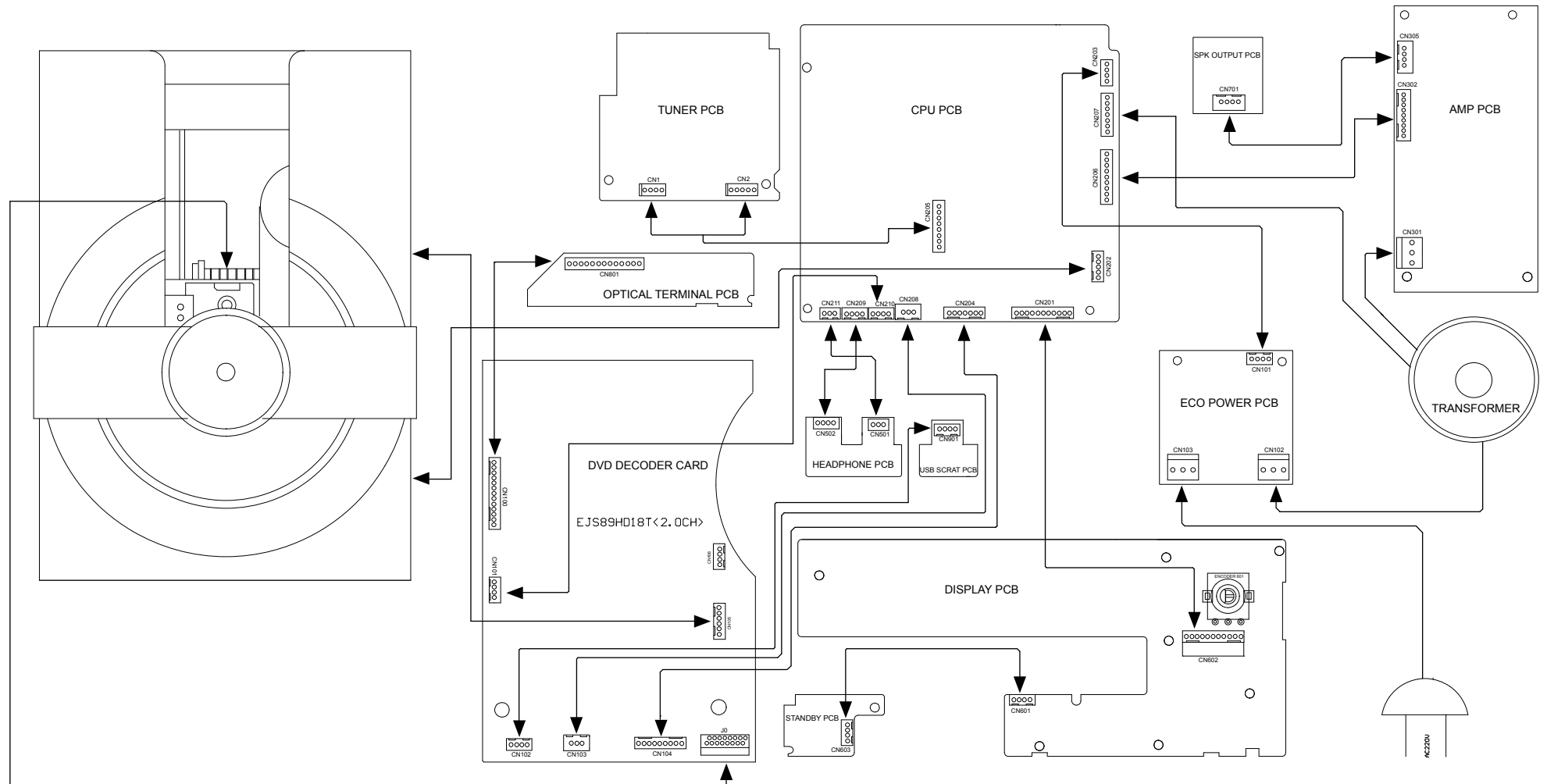
## USB SCART PCB





# DR-H300

## 5 WIRING DIAGRAM





**6 INCLUDED ACCESSORIES****INCLUDED ACCESSORIES**

REF. NO	PARTS NO.	DESCRIPTION	REMARKS
	41003565	INSTRUCTION BOOK-E/F/G	
	41003566	INSTRUCTION BOOK - S/D/I	
	34000004	AAA ALKALINE BATTERY AAA CARBON BATTERY	
	27000247	NE-920 FM ANT 1.8M	
	27000043	AUDIO SINGLE WIRE W/RCA PLUG - YELLOW	
	08-NE1300-03A102	ANTENNA HOLDER ASSY - AM	
	32000286B	REMOTE HANDSET - BLACK (RC1115)	
	32000286S	REMOTE HANDSET - SILVER (RC1114)	

# DR-H300

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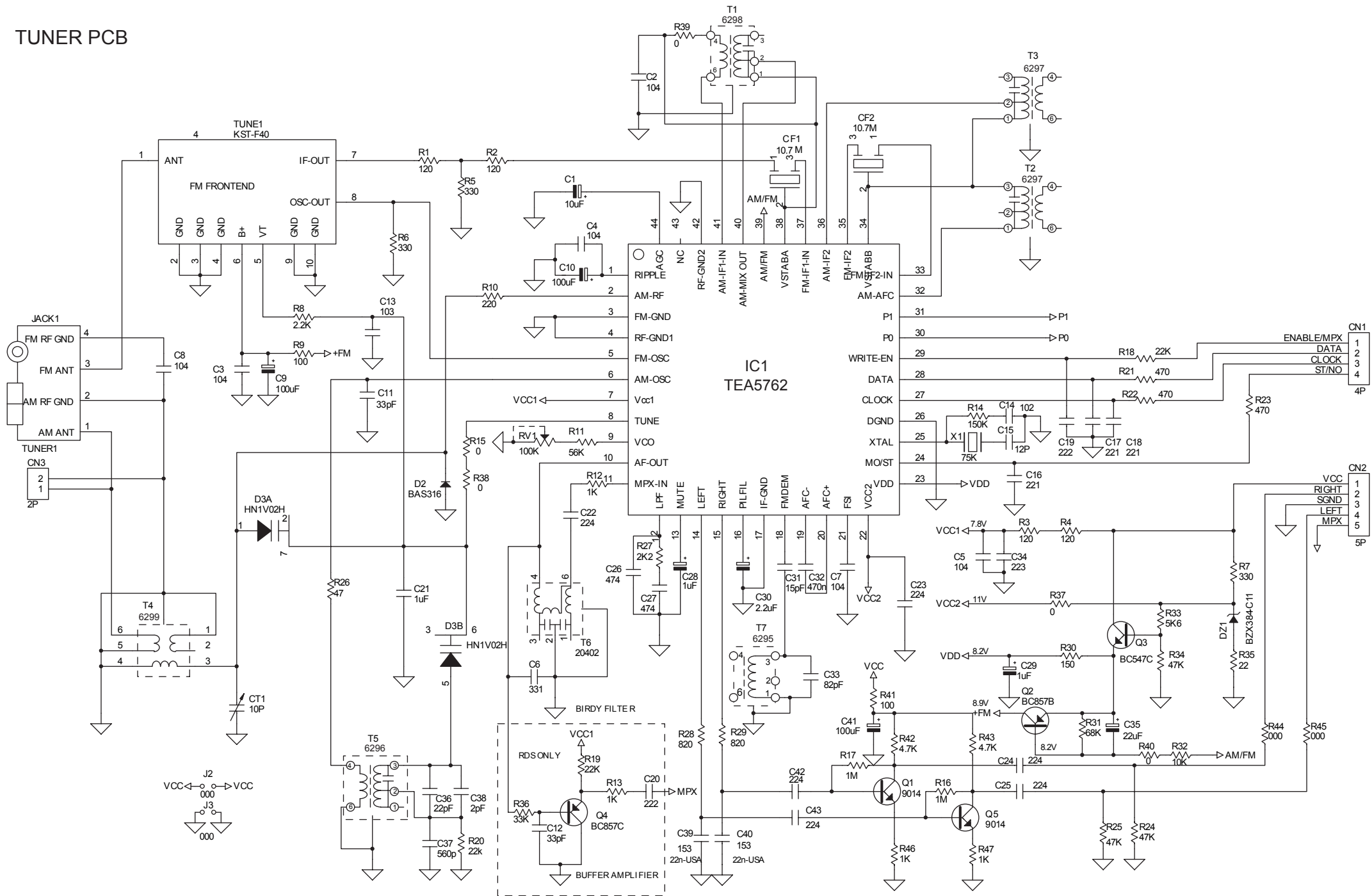
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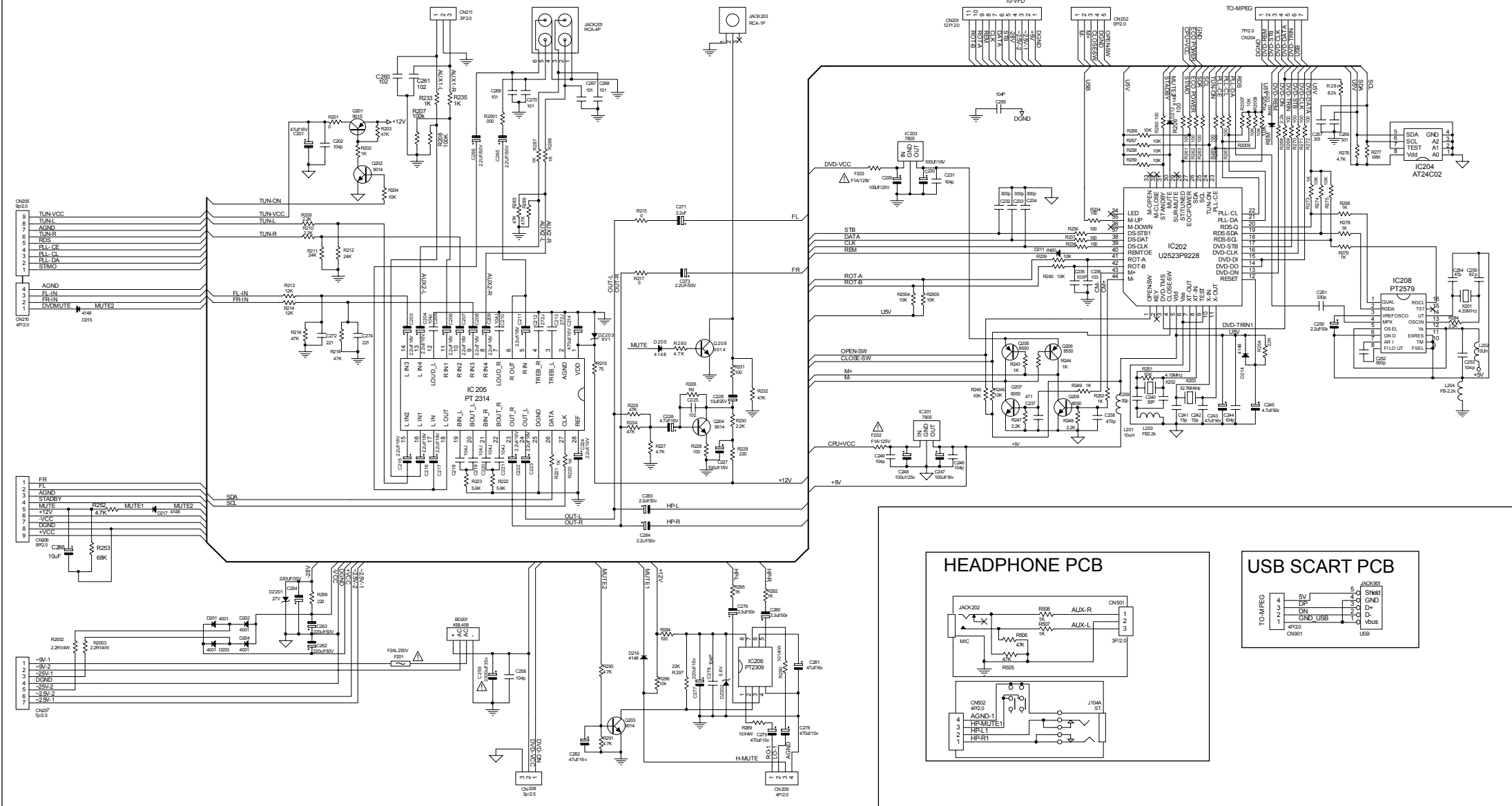
## TUNER PCB



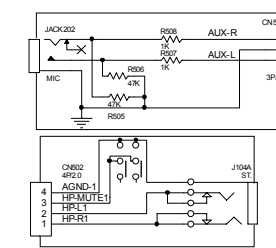
# DR-H300

## DVD Receiver

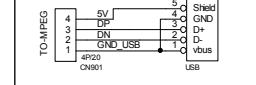
## CPU PCB



## HEADPHONE PCB



## USB SCART PCB



# DR-H300

## DVD Receiver